

AMENDMENT TO THE CLAIMS

Please enter the following amendments to the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

1. (currently amended) A recombinant adenovirus that mediates enhanced gene transfer to primary tumor cells, wherein said adenovirus comprises a fiber gene modified by ~~introducing a ligand~~ homologous recombination between a plasmid comprising the fiber gene having a SmaI site and a plasmid comprising a cDNA encoding a tripeptide having the sequence Arg-Gly-Asp (RGD) into the HI loop domain of the fiber knob, wherein said fiber knob and said fiber gene are from the same serotype.
2. (previously presented) The recombinant adenovirus of claim 1, wherein said adenovirus can achieve coxsackievirus and adenovirus receptor-independent gene transfer.
3. (original) The recombinant adenovirus of claim 1, wherein said adenovirus further comprises an additional modification to said fiber knob, thereby ablating the native tropism of said adenovirus.
4. (original) The recombinant adenovirus of claim 1, wherein said modified fiber knob retains its ability to trimerize and retain its native biosynthesis profile.
- 5-8. (canceled)
9. (previously presented) The recombinant adenovirus of claim 1, wherein the adenoviral vector encoding said adenovirus further comprises a herpes simplex virus-thymidine kinase gene.
10. (canceled)
11. (previously presented) A method of killing tumor cells in an individual comprising the steps of: injecting an effective amount of the recombinant adenovirus of claim 9 to the tumor in said individual; and treating said individual with ganciclovir.
- 12-15. (canceled)
16. (currently amended) A method of increasing the ability of an adenovirus to transduce primary tumor cells *in vitro* or *ex vivo*, comprising the steps of: modifying the fiber gene of said adenovirus by ~~introducing a ligand~~ homologous recombination between a plasmid comprising the fiber gene having a SmaI site and a plasmid comprising a cDNA encoding a tripeptide having the sequence Arg-Gly-Asp (RGD) into the HI loop domain of the fiber knob;

and transducing said primary tumor cells with said adenovirus, wherein said transduction results in enhanced gene transfer to said tumors.

17-21. (canceled)

22. (previously presented) The method of claim 16, wherein said tumor cell is selected from the group consisting of cancer ascite samples and primary tumor explants.

23. (original) The method of claim 16, wherein the adenoviral vector encoding said adenovirus further comprises a therapeutic gene.

24. (new) The recombinant adenovirus of claim 1, wherein the plasmid comprising the fiber gene having a *Swa*I site is linearized with *Swa*I prior to homologous recombination.

25. (new) The method of claim 16, wherein the plasmid comprising the fiber gene having a *Swa*I site is linearized with *Swa*I prior to homologous recombination.